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**Summary.**

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**(57) [Abstract]**

[Technical problem] The game machine which raised the interest of the whole game by raising the game nature about the role game of small is offered.

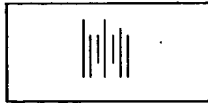
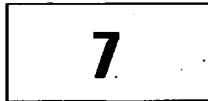
[Means for Solution] The game machine 1 is equipped with the reels 3L, 3C, and 3R which consist of various patterns, and the earth switches 7L, 7C, and 7R prepared corresponding to each of Reels 3L, 3C, and 3R, and carries out halt control of the change display of Reels 3L, 3C, and 3R based on the stop signal from the determination result and earth switches 7L, 7C, and 7R of the role of winning a prize by the random number lottery. In this game machine 1, lots are cast [ whether the success-in-an-election probability about at least one role of winning a prize is made to increase in the lottery of the role of winning a prize, and ], and this lottery result is displayed on a liquid crystal display 5.

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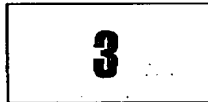
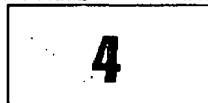
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FIG. 18

(1)スタート操作時

(2)確率テーブル抽選で当選し、  
かつ停止テーブル抽選で当選した場合

(3)確率テーブル抽選でのみ当選した場合

(4)停止テーブル抽選でのみ当選、  
または、両抽選でハズレの場合


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CLAIMS

[Claim(s)]

[Claim 1] The game machine characterized by providing the following. The change display means which arranges two or more pattern trains which consist of various patterns, and indicates this pattern train by change. Change display means for stopping prepared corresponding to each of this pattern train. The 1st lottery means which determines the role of winning a prize by the random number lottery. this — the halt control means which carry out the halt control of the change display of the

aforementioned pattern train based on the stop signal from the lottery result in the 1st lottery means, and the aforementioned change display means for stopping, and 2nd lottery means whether the success-in-an-election probability about at least one role of winning a prize makes increase in the lottery in the lottery means of the above 1st, and cast lots — this — a subdisplay means display the lottery result in the 2nd lottery means

[Claim 2] The game machine characterized by providing the following. The change display means which arranges two or more pattern trains which consist of various patterns, and indicates this pattern train by change. Change display means for stopping prepared corresponding to each of this pattern train. The 1st lottery means which determines the role of winning a prize by the random number lottery. this — the change display of the aforementioned pattern train with the halt control means which carry out halt control based on the stop signal from the lottery result in the 1st lottery means, and the aforementioned change display means for stopping When it is a predetermined mode corresponding to the role of winning a prize which the halt mode of the change display means in which halt control was carried out by these halt control means determined with the lottery means of the above 1st, the 2nd lottery means which casts [ whether the possibility of the winning-a-prize formation about a game value grant means to give predetermined game value as winning-a-prize formation, and at least one role of winning a prize is made to increase, and ] lots — this — a subdisplay means to display the lottery result in the 2nd lottery means

[Claim 3] The game machine characterized by providing the following. The change display means which arranges two or more pattern trains which consist of various patterns, and indicates this pattern train by change. Change display means for stopping prepared corresponding to each of this pattern train. The 1st lottery means which determines the role of winning a prize by the random number lottery. this — the change display of the aforementioned pattern train with the halt control means which carry out halt control based on the stop signal from the lottery result in the 1st lottery means, and the aforementioned change display means for stopping When it is a predetermined mode corresponding to the role of winning a prize which the halt mode of the change display means in which halt control was carried out by these halt control means determined with the lottery means of the above 1st, The lottery of whether to make the success-in-an-election probability about at least one role of winning a prize increase in the lottery in a game value grant means to give predetermined game value as winning-a-prize formation, and the lottery means of the above 1st, and the 2nd lottery means which casts [ whether the possibility of the winning-a-prize formation about at least one role of winning a prize is made to increase, and ] lots — this — a subdisplay means to display the lottery result in the 2nd lottery means

[Claim 4] 3 is [ a claim 1 or ] the game machine characterized by for the aforementioned subdisplay means starting the change display of the aforementioned

pattern train in the game machine of a publication according to a predetermined input signal, and indicating the predetermined pattern by halt according to the lottery result in the lottery means of the above 2nd either.

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**DETAILED DESCRIPTION**

[Detailed Description of the Invention]

[0001]

[The technical field to which invention belongs] this invention relates to the game machines equipped with the change display which indicates two or more patterns required for a game by change, and control means, such as a microcomputer which controls the change display of this change display, such as a slot machine and a pachislot machine.

[0002]

[Description of the Prior Art] For example, the slot machine equipped with the earth switch and the so-called pachislot machine have the change display which arranged two or more mechanical rotation reels which indicate the pattern of plurality (for example, 21 pieces) by change, and constituted them in the front display window, or the change display which consisted of electric meanses which indicate the pattern on a reel by change on a screen. By driving change display and rotating each reel according to start operation of a game person, the pattern is indicated by change and rotation of each reel is automatically stopped one by one by halt operation of a game person after fixed time. At this time, when the pattern of each reel which appeared in the display window becomes specific combination (winning-a-prize pattern), profits are given to a game person by paying out game media, such as coin and a medal.

[0003] In order to materialize winning a prize which coin, a medal, etc. pay out in such a game machine The role of winning a prize is won by internal lottery processing (henceforth an "internal lottery"). (It says as "internal success in an

election" hereafter) It is required that a game person should perform halt operation to the timing which can be stopped on the winning-a-prize line (henceforth an "effective line") which had the combination of the pattern which carries out and shows the winning-a-prize formation of the role of winning a prize (henceforth "the role of internal success in an election") which carried out internal success in an election validated. That is, though internal success in an election is carried out how much, if the timing of halt operation of a game person is bad, winning a prize cannot be formed. That is, the game machine with which the technology which became skillful in the timing of halt operation is demanded (the specific gravity of the technical intervention nature called "eye push" is high) is the present mainstream.

[0004] In such a game machine, the specific role of winning a prize which various game states are established and will be in the good game state of conditions from the state usual by winning a prize is prepared. For example, the games which give large profits relatively [ person / game ] are the role of special increase winning a prize (a "big bonus" is called and it is written as "BB" below) which can be performed the number of predetermined times, the role of winning a prize (a "regular bonus" is called and it is written as "RB" below) which obtains the game which gives small profits relatively / person / game ] the predetermined game of several lines.

[0005] However, the frequency of winning a prize to such a specific role of winning a prize is low, and the game (henceforth "the role game of small") to which one expenditure of a medal is performed by winning a prize to roles of winning a prize other than the role of winning a prize of these specification (generally called "the role of small") occupies the great portion of game time. Therefore, raising the interest of the whole game by raising the game nature about the role game of small is expected.

[0006] In the conventional game machine, there are some "role amendment [ of small ]" Becoming. This is that the success-in-an-election probability of the role of small uses a low lottery table comparatively when winning a prize of the role of small occurs frequently in a certain game section and the rate of reward balls exceeds a fixed upper limit, and the success-in-an-election probability of the role of small uses a comparatively high lottery table when the rate of reward balls is conversely less than a fixed minimum, and is a kind of feedback control which equalizes transition of the rate of reward balls.

[0007] Moreover, it sets to the so-called "table control" which performs halt control of a reel using the halt table which matched the rotation position of a reel when the halt operation by the game person is made, and the pattern stopped in a display window. Two or more halt tables are prepared beforehand, and there is also a method of aiming at a device to which a halt mode does not become monotonous by determining the halt table used by the random number lottery even if it is in the role of the same winning a prize and the same game state.

[0008]

[Problem(s) to be Solved by the Invention] However, in the above-mentioned "role amendment of small" function, the game nature of the role game of small is not raised for the purpose of management of the rate of reward balls. Moreover, even if it is the case where "table control" which prepares two or more halt tables and a colorful halt mode directs is performed, since this is a production function after the event as a result of halt operation, it does not raise the interest of the game in a game.

[0009] this invention is raising the interest of the whole game by raising the game nature about the role game of small.

[0010]

[Means for Solving the Problem] The change display means which the 1st mode of this invention arranges two or more pattern trains which consist of various patterns, and indicates this pattern train by change, The change display means for stopping prepared corresponding to each of this pattern train, and the 1st lottery means which determines the role of winning a prize by the random number lottery, this — the change display of a pattern train with the halt control means which carry out halt control based on the stop signal from the 1st lottery result and change display means for stopping in a lottery means the 2nd lottery means which casts [ whether the success-in-an-election probability about at least one role of winning a prize is made to increase in the lottery in the 1st lottery means, and ] lots — this — it is the game machine characterized by having a subdisplay means to display the lottery result in the 2nd lottery means

[0011] The change display means which the 2nd mode of this invention arranges two or more pattern trains which consist of various patterns, and indicates this pattern train by change, The change display means for stopping prepared corresponding to each of this pattern train, and the 1st lottery means which determines the role of winning a prize by the random number lottery, this — the change display of a pattern train with the halt control means which carry out halt control based on the stop signal from the 1st lottery result and change display means for stopping in a lottery means When it is a predetermined mode corresponding to the role of winning a prize which the halt mode of the change display means in which halt control was carried out by these halt control means determined with the 1st lottery means, The 2nd lottery means which casts [ whether the possibility of the winning-a-prize formation about a game value grant means to give predetermined game value as winning-a-prize formation, and at least one role of winning a prize is made to increase, and ] lots, this — it is the game machine characterized by having a subdisplay means to display the lottery result in the 2nd lottery means

[0012] The change display means which the 3rd mode of this invention arranges two or more pattern trains which consist of various patterns, and indicates this pattern train by change, The change display means for stopping prepared corresponding to each of this pattern train, and the 1st lottery means which determines the role of winning a prize by the random number lottery, this — the change display of a

pattern train with the halt control means which carry out halt control based on the stop signal from the 1st lottery result and change display means for stopping in a lottery means. When it is a predetermined mode corresponding to the role of winning a prize which the halt mode of the change display means in which halt control was carried out by these halt control means determined with the 1st lottery means, The lottery of whether to make the success-in-an-election probability about at least one role of winning a prize increase in the lottery in a game value grant means to give predetermined game value as winning-a-prize formation, and the 1st lottery means, and the 2nd lottery means which casts [ whether the possibility of the winning-a-prize formation about at least one role of winning a prize is made to increase, and ] lots — this — it is the game machine characterized by having a subdisplay means to display the lottery result in the 2nd lottery means.

[0013] In the embodiment of this invention, a subdisplay means starts the change display of a pattern train according to a predetermined input signal, and indicates the predetermined pattern by halt according to the lottery result in the 2nd lottery means.

[0014]

[Function and Effect] Since according to the 1st mode of this invention the success-in-an-election probability of at least one role of winning a prize changes with random number lotteries rather than is uniform, new game nature is added to the role game of small in a general game state, and the interest of the whole game increases. Moreover, since the result of the random number lottery is displayed on a subdisplay means, a game person can result in change to the role game of small in a monotonous general game state by observing the display of the subdisplay means while being able to recognize easily about change of success-in-an-election probability. The success-in-an-election probability of the predetermined role of winning a prize will be high, especially a game person will expect a bird clapper, and the display of a subdisplay means will be observed.

[0015] According to the 2nd mode of this invention, since the possibility of the winning-a-prize formation about at least one role of winning a prize changes with random number lotteries, even if it performs the same halt operation, a halt result will change, new game nature is added to the role game of small in a general game state, and the interest of the whole game increases. Moreover, since the result of the random number lottery is the useful information in connection with halt operation of a game person's after that, a game person will note whether the possibility of the winning-a-prize formation about at least one role of winning a prize changed at the display of a subdisplay means to display. Thereby, it can result in change to the game in a monotonous general game state. The possibility of the winning-a-prize formation about the predetermined role of winning a prize will be high, especially a game person will expect a bird clapper, and the display of a subdisplay means will be observed.

[0016] According to the 3rd mode of this invention, since the success-in-an-

election probability of at least one role of winning a prize and the possibility of the winning-a-prize formation about at least one role of winning a prize change with random number lotteries, it becomes that to which the role game of small in a general game state was rich in change, and the interest of the whole game increases more. Moreover, the result of the random number lottery is the information in connection with a game person's profits, and in order that a game person may check whether both the success-in-an-election probability of whether the success-in-an-election probability of at least one role of winning a prize increased or the possibility of the winning-a-prize formation about at least one role of winning a prize increased, and at least one role of winning a prize and the possibility of winning-a-prize formation have increased, he will observe the display of a subdisplay means. Thereby, it can result in change to the game in a monotonous general game state.

[0017] According to the 4th mode of this invention, since a subdisplay means starts the change display of a pattern according to a predetermined input signal and indicates the predetermined pattern by halt according to the lottery result in the 2nd lottery means, it serves as production as if it was performing lottery processing in a subdisplay means, and can give enjoyment to the game in a monotonous general game state. In order that especially a game person may observe the lottery result shown with a subdisplay means, the change display of the pattern in a subdisplay means will also be observed, it becomes the production which performs a game covering two stages, and the interest as the whole game increases.

[0018]

[Embodiments of the Invention] Drawing 1 is the perspective diagram showing the appearance of the game machine 1 of one example of this invention. The game machine 1 is the so-called "pachislot machine." Although this game machine 1 is a game machine which plays a game, using coin, a medal, or a token as a game medium, below, it is explained as what uses a medal.

[0019] Panel display 2a as an abbreviation vertical plane is formed in the transverse plane of the cabinet 2 which forms the whole game machine 1, and three display windows (left display window 4L, inside display window 4C, right display window 4R) of a longwise rectangle are prepared in the center. Cross down line 8a and close-up line 8e are horizontally prepared in top-line 8b, center line 8c and bottom line 8d, and the direction of slant as a winning-a-prize line at display windows 4L, 4C, and 4R. 1, 3, and 5 are validated, respectively that these winning-a-prize lines 8a-8e operate the below-mentioned 1-BET switch 11, the 2-BET switch 12, and the maximum BET switch 13 or by throwing a medal into medal input port 22. It is displayed by lighting of the BET lamps 9a, 9b, and 9c which mention later which winning-a-prize line was validated.

[0020] Three reels (left reel 3L, inside reel 3C, right reel 3R) which constituted the pattern train which consists of two or more kinds of patterns in the peripheral face are formed in the interior of a cabinet 2 free [ rotation ]. The change display of the pattern on the peripheral face by rotation of these reels 3L, 3C, and 3R can observe



now through display windows 4L, 4C, and 4R. That is, Reels 3L, 3C, and 3R and display windows 4L, 4C, and 4R form the change display means.

[0021] 1-BET lamp 9a, 2-BET lamp 9b, maximum BET lamp 9c, and the credit display 19 are formed in the left-hand side of left display window 4L. 1-BET lamp 9a, 2-BET lamp 9b, and maximum BET lamp 9c are turned on according to the number of the medals bet in order to perform the game of 1 (henceforth a "BET number"). Here, the game of 1 is ended, when all the reels stop, or when the production display in the liquid crystal display 5 of the game is completed. A BET number turns on 1-BET lamp 9a, when one winning-a-prize line is validated by "1." A BET number turns on 2-BET lamp 9b, when three winning-a-prize lines are validated by "2." Maximum BET lamp 9c is turned on when a winning-a-prize line [ all / a BET number / "3" / (5) ] is validated. By the 7 segment Light Emitting Diode, a display is formed and the credit display 19 displays the number of sheets of the medal currently stored.

[0022] The WIN lamp 17 and the expenditure display 18 are formed in the right-hand side of right display window 4R. In BB winning a prize mentioned later or RB winning a prize, the light is switched on, and the WIN lamp 17 is turned on by predetermined probability, when internal success in an election is carried out at BB or RB. A display is formed by the 7 segment Light Emitting Diode, and the expenditure display 18 displays the expenditure number of sheets of the medal at the time of winning-a-prize formation.

[0023] A lamp 26, the re-game display lamp 27, and the game halt display lamp 28 are formed in the left-hand side upper part of panel display 2a during BB game state lamp 25 and RB operation. The light is switched on in BB game state mentioned later, and BB game state lamp 25 turns on a lamp 26 during RB operation mentioned later during RB operation. The re-game display lamp 27 is turned on when winning a prize of the re-game (replay) mentioned later is materialized. The game halt display lamp 28 is turned on at the time of the time between the last game and this game (for example, up to start operation of this game from the rotation start of the reel of the last game) being under a predetermined time (for example, 4.1 seconds); the time of error generating, etc.

[0024] The bonus game information-display section 20 is formed in the right-hand side upper part of panel display 2a. A display is formed by the 7 segment Light Emitting Diode, and the bonus game information-display section 20 displays the number of times of RB game possible and the number of times for which a prize can be RB game won which are mentioned later.

[0025] The plinth section 10 of the level surface is formed under the display windows 4L, 4C, and 4R, and the liquid crystal display 5 is formed among the plinth section 10 and display windows 4L, 4C, and 4R. The production by various pictures etc. is displayed on screen 5a of this liquid crystal display 5 among a game.

[0026] This liquid crystal display 5 achieves the function as a subdisplay means to display the lottery result of "probability table lottery processing" performed in

CPU31 as 2nd lottery means, and "halt table lottery processing." Specifically, by operation (henceforth "start operation") of the below-mentioned start lever 6, the change display of a number pattern begins in screen 5a of this liquid crystal display 5, and the number pattern which shows the lottery result in the below-mentioned probability table lottery processing (drawing 9) and halt table lottery processing (drawing 13) is indicated by halt after predetermined-time (for example, 2 seconds) progress. This drawing 1 shows the place which is indicating the number pattern "7" by halt to screen 5a. The concrete example of a display is explained with reference to drawing.18 later.

[0027] Medal input port 22 is formed in the right-hand side of a liquid crystal display 5, and the 1-BET switch 11, the 2-BET switch 12, and the maximum BET switch 13 are formed in the left-hand side of a liquid crystal display 5. The medal of the maximum number of sheets [ the 1-BET switch 11 ] which can bet the maximum BET switch 13 on 1 time of a game by risking two in the medal with which one in the medal in which the credit is carried out by one push operation is risked on a game, and the credit of the 2-BET switch 12 is carried out by one push operation on a game is bet. By operating these BET switches, a predetermined winning-a-prize line is validated as above-mentioned.

[0028] The C/P switch 14 which switches the credit/expenditure of the medal which the game person gained in the game by push button operation is formed in the left of the front section of the plinth section 10. The medal which the medal paid out of the medal expenditure mouth 15 of the transverse-plane lower part, and was paid out by the change of this C/P switch 14 is accumulated in the medal receptacle section 16. On the right-hand side of the C/P switch 14, the above-mentioned reel is rotated by operation of a game person, and the start lever 6 for starting the change display of the pattern within display windows 4L and 4C and 4R is attached free [ rotation ] in the predetermined angle range.

[0029] In the center of the front section of the plinth section 10, three earth switches (left earth-switch 7L, inside earth-switch 7C, right earth-switch 7R) as means for stopping which stop rotation of three reels 3L, 3C, and 3R, respectively are prepared in the lower part position of a liquid crystal display 5 by the game person operational. Two sets (left loudspeaker 21L, right loudspeaker 21R) of loudspeakers are prepared in right and left, and the dividend table panel 23 which displays the combination of a winning-a-prize pattern, the dividend number of sheets of a medal, etc. is formed above the cabinet 2 between two sets of the loudspeakers 21L and 21R.

[0030] Drawing 2 shows circuitry including the sub control circuit 72 which controls a liquid crystal display 5 and Loudspeakers 21L and 21R based on the peripheral device (actuator) electrically connected to the main-control circuit 71 which controls game processing operation in the game machine 1, and the main-control circuit 71, and the control command transmitted from the main-control circuit 71.

[0031] The main-control circuit 71 makes a main component the microcomputer 30

arranged on the circuit board, adds the circuit for a random number sampling to this, and is constituted. A microcomputer 30 contains CPU31 which performs control action according to the program set up beforehand, and ROM32 and RAM33 which are a storage means.

[0032] The clock pulse generating circuit 34 and counting-down circuit 35 which generate a criteria clock pulse, the random number generator 36 which generates the random number sampled, and the sampling circuit 37 are connected to CPU31. In addition, as a means for a random number sampling, you may constitute so that a random number sampling may be performed within a microcomputer 30 (i.e., on the program of CPU31 of operation). In this case, it is also possible to be able to omit a random number generator 36 and a sampling circuit 37, or to leave as an object for backup of a random number sampling action.

[0033] In ROM32 of a microcomputer 30 The various lottery tables used in the below-mentioned probability lottery processing by the random number sampling performed for every start operation besides the control program for controlling various operation of a game machine, The various control commands (command) for transmitting to the halt table for determining the halt mode of Reels 3L, 3C, and 3R according to operation of earth switches 7L, 7C, and 7R and the sub control circuit 72 etc. are stored.

[0034] In the circuit of this drawing 2, various kinds of drive circuits (the motorised circuit 39, the hopper drive circuit 41, the lamp drive circuit 45, display drive circuit 48) are connected to the output section of CPU31 through I/O Port 38. These drive circuits control operation of each actuator in response to control signals, such as drive instructions outputted from CPU31, respectively.

[0035] The motorised circuit 39 carries out drive control of the stepping motors 49L, 49C, and 49R which carry out the rotation drive of the reels 3L, 3C, and 3R. The hopper drive circuit 41 carries out drive control of the hopper (the mechanical component for expenditure is included) 40 which contains a medal and pays out the medal of predetermined number of sheets based on the expenditure instructions from CPU31. The lamp drive circuit 45 carries out drive control of the various lamps (a maximum of under BET lamp 9c, the WIN lamp 17, BB game state lamp 25, and RB operation 1-BET lamp 9a, 2-BET lamp 9b, a lamp 26, the re-game display lamp 27, the game halt display lamp 28). The display drive circuit 48 carries out drive control of the various displays (the expenditure display 18, the credit display 19, bonus game information-display section 20).

[0036] As main input signal generating meanses to generate an input signal required since a microcomputer 30 generates a control command, there are start switch 6S, the 1-BET switch 11, the 2-BET switch 12, the maximum BET switch 13, the C/P switch 14, injection medal sensor 22S, the reel stop signal circuit 46, the reel position detector 50, and a completion signal circuit 51 of expenditure. These are also connected to CPU31 through I/O Port 38.

[0037] Start switch 6S detect start operation. Injection medal sensor 22S detect the

medal thrown into medal input port 22. The reel stop signal circuit 46 generates a stop signal according to operation of each earth switches 7L, 7C, and 7R. The reel position detector 50 supplies the signal for detecting the position of each reels 3L, 3C, and 3R in response to the pulse signal from a reel to CPU31. The completion signal circuit 51 of expenditure supplies the signal which shows the completion of medal expenditure to CPU31, when the number-of-sheets data with which the enumerated data (number of sheets of the medal paid out of the hopper 40) of medal detecting-element 40S was specified are reached.

[0038] In the circuit of drawing 2, a random number generator 36 generates the random number belonging to the fixed numerical range, and a sampling circuit 37 samples a random number to the proper timing after start lever operation. In this way, based on the probability table (drawing 11) stored in the sampled random number value and ROM32, one of the roles of winning a prize or HAZURE are determined. Here, it is called "internal success in an election" that one of the roles of winning a prize is determined by this random number lottery, and the role of winning a prize is called "role of internal success in an election." In addition, in this example, as a probability table, it has two kinds, "it being usually a probability table" and this "increase probability table" that usually raised the success-in-an-election probability about the predetermined role of winning a prize (it is a "four-sheet cherry" at the example shown in drawing 13) compared with the probability table, and which probability table is chosen by the lottery by the random number sampled apart from the above-mentioned random number.

[0039] After rotation of Reels 3L, 3C, and 3R is started, counting of the number of the driving pulses supplied to each of stepping motors 49L, 49C, and 49R is carried out, and the enumerated data is written in the predetermined area of RAM33. A reset pulse is obtained from Reels 3L, 3C, and 3R for every one revolution, and these pulses are inputted into CPU31 through the reel position detector 50. In this way, the enumerated data of the driving pulse by which counting is carried out by RAM33 is cleared by the obtained reset pulse "0." Thereby, in RAM33, the enumerated data corresponding to the rotation position of one revolution within the limits is stored about each reels 3L, 3C, and 3R.

[0040] In this way, the pattern table as data for matching the rotation position of the reels 3L, 3C, and 3R obtained and the pattern position on a reel peripheral face is stored in ROM32. On this pattern table, the code number given one by one for every fixed rotation pitch of each reels 3L, 3C, and 3R as shown in below-mentioned drawing 8 on the basis of the rotation position which the reset pulse mentioned above generates, and the pattern code which shows the pattern established by corresponding for every code number are matched.

[0041] Furthermore, in ROM32, the winning-a-prize pattern combination table is stored. On this winning-a-prize pattern combination table, the combination of the pattern which is winning a prize, the medal dividend number of sheets of winning a prize, and the winning-a-prize judging code showing the winning a prize are matched.

[0042] The above-mentioned winning-a-prize pattern combination table is referred to in the time of each halt control of three reels 3L, 3C, and 3R, and the case of the winning-a-prize check after [ all ] a reel halt.

[0043] CPU31 sends the halt control signal which carries out halt control of the reels 3L, 3C, and 3R according to the stop signal sent from the reel stop signal circuit 46 to the timing of operation of the earth switches 7L, 7C, and 7R by the game person to the motorised circuit 39 after the lottery processing (the below-mentioned probability lottery processing) based on the above-mentioned random number sampling. And the motorised circuit 39 carries out halt control of the stepping motors 49L, 49C, and 49R according to the halt control signal.

[0044] In halt control of Reels 3L, 3C, and 3R CPU31 It writes in the predetermined field of RAM33 by making into a halt actuated valve position the code number of the pattern which is on center line 8c when a stop signal is received from the reel stop signal circuit 46. With reference to a halt table as shown in below-mentioned drawing 14, it writes in the predetermined field of RAM33 by making the code number of the pattern corresponding to a halt actuated valve position into a pattern halt position.

The pattern to which the code number as the pattern halt position was given is determined on center line 8c as a pattern which indicates by halt at the time of a halt of a reel. Based on the determined pattern halt position, CPU31 carries out halt control of each reels 3L, 3C, and 3R by the motorised circuit 39.

[0045] When the combination of the halt pattern on an effective line judges with what shows winning a prize, CPU31 supplies an expenditure command signal to the hopper drive circuit 41, and pays the medal of the predetermined number out of a hopper 40. Counting of the number of sheets of the medal which pays medal detecting-element 40S out of a hopper 40 in that case is carried out, and when the number with which the enumerated data was specified is reached, the completion signal of expenditure is inputted into CPU31 by the completion signal circuit 51 of expenditure. Thereby, CPU31 stops the drive of a hopper 40 through the hopper drive circuit 41, and ends expenditure processing of a medal.

[0046] A role lottery means of winning a prize by which CPU31 determines the role of winning a prize by the random number lottery as above, The halt control means which carry out halt control of each reels 3L, 3C, and 3R based on the lottery result and stop signal in this role lottery means of winning a prize, And when the halt mode of Reels 3L, 3C, and 3R is a predetermined mode used as winning a prize of the role of internal success in an election, it considers as winning-a-prize formation, and the function as a game value grant means to pay out the medal as game value is achieved.

[0047] The block diagram of drawing 3 shows the composition of the sub control circuit 72. The sub control circuit 72 performs the display control of the liquid crystal display 5 based on the control command (command) from the main-control circuit 71, and the output control of the sound to Loudspeakers 21L and 21R. This sub control circuit 72 is constituted on the circuit board other than the circuit board

which constitutes the main-control circuit 71, makes a microcomputer (henceforth a "sub microcomputer") 73 a main component, and consists of a sound source IC 78 which controls the sound \*\*\*\*(ed) by the picture control circuit 81 as a display-control means of a liquid crystal display 5, and Loudspeakers 21L and 21R, and power amplification 79 as amplifier.

[0048] The sub microcomputer 73 contains the program ROM 75 and Work RAM 76 as a storage means with the factice CPU 74 who performs control action based on the command received from the main-control circuit 71. Although it does not have the clock pulse generating circuit, the counting-down circuit, the random number generator, and the sampling circuit, the sub control circuit 72 is constituted so that a random number sampling may be performed on a factice's CPU 74 program of operation. A program ROM 75 stores a control program, sound data, etc. which are performed as a factice CPU 74. A work RAM 76 is constituted as a temporary storage means when performing the above-mentioned control program as a factice CPU 74.

[0049] The picture control circuit 81 consists of the picture control CPU 82, the picture control work RAM 83, picture control program ROM84, a picture ROM 86, Video RAM 87, and picture control IC 88. The picture control CPU 82 determines the contents of a display in a liquid crystal display 5 according to the picture control program stored in picture control program ROM84 based on the parameter set up with the sub microcomputer 73. Picture control program ROM84 stores the picture control program about a display with a liquid crystal display 5. The picture control work RAM 83 is constituted as a temporary storage means when performing the above-mentioned picture control program by the picture control CPU 82. The picture control IC 88 forms the picture according to the contents of a display determined by the picture control CPU 82, and outputs it to a liquid crystal display 5. A picture ROM 86 stores the dot data for forming a picture. Video RAM 87 consists of picture control IC 88 as a temporary storage means when forming a picture.

[0050] Drawing 4 shows the pattern train which is expressed on the peripheral face of each reels 3L, 3C, and 3R and in which two or more kinds of patterns were arranged 21 pieces. The code number of "1" - "21" is given to each pattern, and it is stored in above-mentioned ROM32 ( drawing 2 ) as a pattern table.

[0051] In the game machine 1 of an example, a game person can perform a game in the "general game state" which is in the usual game state, "the interior success-in-an-election game state of BB" where the role of internal success in an election is BB, "the interior success-in-an-election game state of RB" where the role of internal success in an election is RB, "BB game state" where of many medals generated by BB winning a prize can be gained, and the "RB game state" generate by RB winning a prize.

[0052] For a game person, "BB game state" (big bonus game state) is in the most advantageous game state, meets an effective winning-a-prize line in the interior success-in-an-election game state of BB, and is "7 with 7with 7(pattern 91 of

drawing 4 ) with ribbon-ribbon-ribbon", or "7 (pattern 92 of drawing 4 )-7-7". When it stands in a line, it becomes BB winning a prize and generates. The medal of 15 sheets pays out at the time of this BB winning a prize. Moreover, in addition to RB game state described below occurring twice [ a maximum of ] in the state of BB game, in the game state (henceforth "general BB game state") where the same game as a general game state can be performed to the role of small in the state where the probability which carries out internal success in an election is high, a maximum of 30 times of games can be performed.

[0053] "RB game state" (regular bonus game state) meets an effective winning-a-prize line in the interior success-in-an-election game state of RB, and is "BAR(pattern 93 of drawing 4 )-BAR-BAR". When it stands in a line, it becomes RB winning a prize and generates. This RB game state is in the game state where a predetermined pattern combination "JAC(pattern 94 of drawing 4 )-JAC-JAC" tends to win a prize of the bonus game (it is called a JAC game) which can gain a set and the medal of 15 sheets, by betting a medal one sheet. In the state of RB game, a maximum of 12 times of games can be performed, for example, and the number of times to a JAC game in the meantime for which a prize can be won is 8 times. In above-mentioned general BB game state, this RB game state is generated, when "JAC-JAC-JAC" is located in a line along with an effective line (the so-called "JAC in").

[0054] In the general game state where the role of internal success in an election is "replay", a re-game (replay) is materialized, when "JAC-JAC-JAC" is located in a line along with an effective line. If winning a prize of a re-game is materialized, since the thrown-in medal of the number of sheets of a medal and the same number will be thrown in automatically, a game person can perform the following game, without consuming a medal.

[0055] In the general game state where the role of internal success in an election is an "orange", when an "orange (pattern 95 of drawing 4 )-orange-orange" is located in a line along with an effective winning-a-prize line, it becomes "role winning a prize of small of an orange", and the medal of six sheets pays out.

[0056] In the general game state where the role of internal success in an election is a "grape", when a "grape (pattern 96 of drawing 4 )-grape-grape" is located in a line along with an effective winning-a-prize line, it becomes "role winning a prize of small of a grape", and the medal of 15 sheets pays out.

[0057] In the general game state where the role of internal success in an election is a "four-sheet cherry" When "a cherry (pattern 97 of drawing 4 )" indicates by halt at the upper case (position where top-line 8b and close-up line 8e cross) or the lower berth (position where bottom line 8d and cross down line 8a cross) of left display window 4L Irrespective of the halt mode of inside reel 3C and right reel 3R, it becomes "role winning a prize of small of a four-sheet cherry", and the medal of four sheets pays out.

[0058] When "a cherry (pattern 97 of drawing 4 )" indicates by halt in the middle (on

the center line c) of left display window 4L in the general game state where the role of internal success in an election is a "two-sheet cherry", irrespective of the halt mode of inside reel 3C and right reel 3R, it becomes "role winning a prize of small of a two-sheet cherry", and the medal of two sheets pays out.

[0059] Here, "the role of small" points out roles of winning a prize other than "BB" to which the so-called "carry-over" is performed, and "RB" from which the formation flag becomes invalid, when winning a prize is not able to be formed in the game which carried out internal success in an election. Moreover, "a re-game (replay)" is contained in "the role of small."

[0060] Next, the main operations sequence of the game machine 1 is explained. Drawing 5 - drawing 7 are flow charts (main flow chart) which are performed by CPU31 of the main-control circuit 71 and which show the procedure of main processing operation.

[0061] Introduction and CPU31 perform initialization at the time of a game start (1 [ step / [it is hereafter written as ST] ]). Specifically, initialization processing (RAM clearance), initialization processing of communication data, etc. which eliminate the content of storage of RAM33 are performed. Then, initialization processing which eliminates the content of storage of RAM33 at the time of a game end is performed (ST2). Specifically, specification of the starting address of elimination of the data of the area of RAM33 used for the last game which can be written in, the writing of a parameter required for the next game to the write-in area of RAM33, and the sequence program of the following game etc. is performed.

[0062] Next, it distinguishes whether CPU31 has the demand of an automatic injection of a medal, or won a prize of replay in the last game (ST3). When this distinction is "YES", the medal for an injection demand is thrown in automatically (ST4), and it moves to processing of ST6. When distinction of ST3 is "NO", it distinguishes whether there is any input from injection medal sensor 22S or the BET switches 11, 12, and 13 (ST5). When this distinction is "YES", it moves to processing of ST6 and moves to processing of ST3 at the time of "NO."

[0063] Next, it distinguishes whether CPU31 has an input from start switch 6S based on operation of the start lever 6 (ST6). When this distinction is "YES", processing which transmits a "start command" to the sub control circuit 72 is performed (ST7).

[0064] Next, after the last game begins, it distinguishes whether 4.1 seconds have passed (ST8), when this distinction is "YES", it moves to processing of ST10, and CPU31 moves to processing of ST9 at the time of "NO." In processing of ST9, "game start latency-time digestive treatment" is performed. In this "game start latency-time digestive treatment", 4.1 seconds after the last game begins, processing which repeals the input based on the operation which starts a game person's game is performed.

[0065] Next, CPU31 sets the timer for 1 game surveillance (ST10). The automatic-stay timer for stopping Reels 3L, 3C, and 3R automatically, without being based on



halt operation of a game person's earth switches 7L, 7C, and 7R is contained in this timer for 1 game surveillance.

[0066] Next, it moves to processing of ST11 of drawing 6, and CPU31 performs "probability lottery processing" which performs various kinds of lotteries based on the random number extraction which is a function as the 1st lottery means and 2nd lottery means. The lottery of the role of winning a prize performed by CPU31 as 1st lottery means in this probability lottery processing (the below-mentioned "role lottery processing of winning a prize"), Lots are cast in the halt table referred to in case the lottery (the below-mentioned "probability table lottery processing") and halt pattern of a probability table which are referred to in the lottery of the role of winning a prize performed by CPU31 as 2nd lottery means are determined (the below-mentioned "halt table lottery processing"). Specifically with reference to the flow chart of drawing 8, it explains later.

[0067] Next, CPU31 performs rotation processing of Reels 3L, 3C, and 3R (ST12).

[0068] Next, CPU31 distinguishes whether earth switches 7L, 7C, and 7R have an input from ON 46, i.e., a reel-stop signal circuit, (ST13). When this distinction is "YES", it moves to processing of ST15. An automatic-stay timer distinguishes [ of "NO" ] whether it is "0" at the time (ST14). When this distinction is "YES", it moves to processing of ST15, and it moves to processing of ST13 at the time of "NO."

[0069] Next, CPU31 performs "pattern halt spotting processing" which determines the halt position of Reels 3L, 3C, and 3R based on the halt table set by the above-mentioned probability lottery processing (ST15). The detail of pattern halt spotting processing is explained with reference to drawing 16 later.

[0070] Next, CPU31 performs halt processing of Reels 3L, 3C, and 3R so that it may become the halt position determined by pattern halt spotting processing (ST16). Then, it distinguishes whether all the reels stopped (ST17), when this distinction is "YES", it moves to processing of ST18 of drawing 7, and it moves to processing of ST13 at the time of "NO."

[0071] In processing of ST18 of drawing 7, CPU31 performs winning-a-prize reference. Winning-a-prize reference is setting the role flag of winning a prize for discriminating the role of winning a prize based on display windows 4L and 4C and the halt mode of the pattern in 4R. Specifically based on the code number and winning-a-prize judging table of a pattern which are located in a line along with center line 8c, the role of winning a prize is discriminated.

[0072] Next, it distinguishes whether CPU31 has a normal winning-a-prize flag (ST19). An illegal error is displayed when this distinction is "NO" (ST20). When distinction of ST19 is "YES", the credit of a medal or expenditure is performed according to a game state (ST21).

[0073] Next, it distinguishes whether CPU31 is in BB game state or RB game state (ST22). When this distinction is "YES", the "number check processing of games" of BB or RB is performed (ST23). In the case of BB game state, by this the "number

check processing of games", the number of times which RB game state generated, the number of times of a game of the game state in [ general ] BB, the number of times of winning a prize in RB game state, and the number of times of a game in RB game state are checked. In the case of RB game state, by the number check processing of games, the number of times of winning a prize in RB game state and the number of times of a game in RB game state are checked.

[0074] Next, it distinguishes whether it is CPU31 at the end time of BB game state or RB game state (ST24). Specifically, in BB game state, in 3rd RB game state, the number of times of winning a prize is [ 8 times or the number of times of a game ] 12 times, or it distinguishes whether the number of times of a game is 30 times in the game state in [ general ] BB. If it is in RB game states other than BB game state, the number of times of winning a prize will distinguish whether 8 times or the number of times of a game is 12 times. When distinction of ST24 is "YES", CPU31 performs initialization processing (RAM clearance) which eliminates the content of storage of RAM33 at the time of the end of BB game state or RB game state (ST25).

[0075] Drawing 8 shows the procedure of above-mentioned "probability lottery processing." This probability lottery processing is performed by ST11 (drawing 6) in the above-mentioned main flow chart.

[0076] First, CPU31 performs "probability table lottery processing" (ST31). In this probability table lottery processing, a random number lottery determines the probability table referred to in the next role lottery processing of winning a prize.

[0077] Next, CPU31 performs "role lottery processing of winning a prize" which determines one of the roles of winning a prize by the random number lottery with reference to the probability table determined by the above-mentioned probability table lottery processing (ST32).

[0078] Next, CPU31 performs "halt table lottery processing" which determines the halt table referred to in the above-mentioned pattern halt spotting processing by the random number lottery based on the role of winning a prize determined by the above-mentioned role lottery processing of winning a prize (ST33).

[0079] Drawing 9 shows the procedure of above-mentioned "probability table lottery processing."

[0080] First, CPU31 extracts the random number value used in this probability table lottery processing in 0-16383, and sets it to the predetermined field of RAM33 by setting the random number value to X (ST41).

[0081] Next, with reference to the "probability table lottery table" stored in ROM32, CPU31 sets the lottery value corresponding to the set point of 1-6 to D, and sets it to the predetermined field of RAM33 (ST42).

[0082] Drawing 10 shows a "probability table lottery table." As shown in this drawing 10, a value different, respectively is set to the lottery value corresponding to the set point of 1-6, and this set point makes a change possible by the manager of game machines, such as a salesclerk or for example, a game store. Therefore, in processing of above-mentioned ST42, when the set point is "1", "600" is chosen

from a probability table lottery table as a lottery value D. When the set point is "2", "605" is chosen from a probability table lottery table as a lottery value D. When the set point is "3", "610" is chosen from a probability table lottery table as a lottery value D. When the set point is "4", "620" is chosen from a probability table lottery table as a lottery value D. When the set point is "5", "750" is chosen from a probability table lottery table as a lottery value D, and when the set point is "6", "800" is chosen from a probability table lottery table as a lottery value D.

[0083] In the flow chart of drawing 9, the value (X-D) which subtracted the lottery value D distinguishes again whether it is negative from the random number value X by which CPU31 was set to the predetermined field of RAM33 (ST43). Here, when the value of "NO" which subtracted the lottery value D at the time X, i.e., a random number value, is positive (0 or more), it sets "it being usually a probability table" corresponding to the set point to the predetermined field of RAM33 (ST44).

[0084] On the other hand, when the value of "YES" which subtracted the lottery value D at the time X, i.e., a random number value, is negative in ST43, processing which CPU31 sets the "increase probability table" corresponding to the set point to the predetermined field of RAM33 (ST45), then transmits a probability table lottery success-in-an-election command to the sub control circuit 72 is performed (ST46).

[0085] Here, the case of "YES" is considered as "probability table lottery success in an election" by the judgment of the above ST 43, and the case of "NO" is made into "probability table lottery HAZURE" by the judgment of the above ST 43.

[0086] Drawing 11 usually shows an example of a probability table and an increase probability table. Here, the usual probability table and increase probability table which are chosen when the set point is "3" are shown. As shown in this drawing 11, as for the increase probability table, compared with the probability table, the lottery value of the role of winning a prize "a four-sheet cherry" is usually set up highly. Namely, as for the increase probability table, the success-in-an-election probability to the role of winning a prize "a four-sheet cherry" is set up highly.

[0087] Drawing 12 shows the procedure of above-mentioned "role lottery processing of winning a prize."

[0088] First, CPU31 extracts the random number value used in this role lottery processing of winning a prize in 0-16383, sets the random number value to Y, and sets it to the predetermined field of RAM33 (ST51).

[0089] Next, with reference to the "probability table" set in RAM33 in ST44 or ST45 of the above-mentioned probability table lottery processing, CPU31 sets the lottery value of the success-in-an-election number of the 1st line of this probability table "1" to E, and sets it to the predetermined field of RAM33 (ST52). For example, when [ which is shown in RAM33 in the above-mentioned probability table lottery processing at drawing 11 ] a probability table is usually set, the lottery value set to the predetermined field of RAM33 as E is a lottery value "200" of a success-in-an-election number "1."

[0090] Next, the value (Y-E) which subtracted the lottery value E distinguishes

whether it is negative from the random number value Y by which CPU31 was set to the predetermined field of RAM33 (ST53). Here, when the value of "YES" which subtracted the lottery value E at the time Y, i.e., a random number value, is negative, with reference to a probability table as shown in drawing 11, CPU31 determines the role of winning a prize corresponding to a success-in-an-election number as a role of internal success in an election (ST54), and it moves from it to processing of ST59.

[0091] On the other hand, when the value of "NO" which subtracted the lottery value E at the time Y, i.e., a random number value, is positive (0 or more) in ST53, CPU31 adds "1" to a success-in-an-election number (ST55), and the success-in-an-election number after the addition distinguishes whether it is below "7" (ST56). At the time of "YES", CPU31 sets the lottery value corresponding to the success-in-an-election number after the addition to E with reference to a probability table, and sets it to the predetermined field of RAM33 (ST57), and it moves from it to processing of ST53 here.

[0092] At the time of "NO", CPU31 determines "HAZURE" as a role of internal success in an election by ST56 (ST58). And processing which transmits the role command of internal success in an election to the sub control circuit 72 is performed (ST59).

[0093] Drawing 13 shows the procedure of above-mentioned "halt table lottery processing."

[0094] First, the role of internal success in an election which determined CPU31 by the above-mentioned role lottery processing of winning a prize distinguishes whether it is a "four-sheet cherry" (ST61). When it is except a "four-sheet cherry" here, the time of internal success in an election, i.e., the role determined by the above-mentioned role lottery processing of winning a prize (drawing 12), of "NO", CPU31 sets the halt table according to the role of internal success in an election to the predetermined field of RAM33 (ST62). The halt table had the code number (henceforth a "halt actuated valve position") of the pattern on center line 8c when a game person does halt operation, and the code number (henceforth a "pattern halt position") of a pattern which indicates by halt on center line 8c matched, and two or more kinds [ table / halt / this ] corresponding to the kind of role of winning a prize about each of three reels of halt tables are set up.

[0095] the time of on the other hand being a "four-sheet cherry" in ST61, the time of internal success in an election, i.e., the role determined by the above-mentioned role lottery processing of winning a prize (drawing 12), of "YES", -- CPU31 -- then, it sets to the predetermined field of RAM33, extracting the random number value used in this halt table lottery processing in 0-16383, and using the random number value as Z (ST63)

[0096] Next, with reference to the "halt table lottery table" stored in ROM32, CPU31 sets the lottery value corresponding to the set point of 1-6 to F, and sets it to the predetermined field of RAM33 (ST64).

[0097] Drawing 14 shows a "halt table lottery table." The set point of 1-6 is the

same as that of the thing of the above-mentioned probability table lottery table. Therefore, in processing of above-mentioned ST64, when the set point is "1", "700" is chosen from a halt table lottery table as a lottery value F. When the set point is "2", "800" is chosen from a halt table lottery table as a lottery value F. When the set point is "3", "900" is chosen from a halt table lottery table as a lottery value F. When the set point is "4", "1000" is chosen from a halt table lottery table as a lottery value F. When the set point is "5", "1200" is chosen from a halt table lottery table as a lottery value F, and when the set point is "6", "1600" is chosen from a halt table lottery table as a lottery value F.

[0098] In the flow chart of drawing 13, the value (Z-F) which subtracted the random number value right-hand-lay lottery value F by which CPU31 was set to the predetermined field of RAM33 distinguishes again whether it is negative (ST65). Here, when the value of "NO" which subtracted at the time F, i.e., a random number value right-hand-lay lottery value, is positive (0 or more), the halt table of "usually setting up" is set to the predetermined field of RAM33 (ST66).

[0099] On the other hand, when the value of "YES" which subtracted at the time F, i.e., a random number value right-hand-lay lottery value, is negative in ST65, processing which CPU31 sets to the predetermined field of RAM33 the halt table of "a setup which is easy to draw a four-sheet cherry" (ST67), then transmits a halt table lottery success-in-an-election command to the sub control circuit 72 is performed (ST68).

[0100] Here, the case of "YES" is considered as "halt table lottery success in an election" by the judgment of the above ST 65, and the case of "NO" is made into "halt table lottery HAZURE" by the judgment of the above ST 65.

[0101] Drawing 15 shows an example of a halt table and shows the halt table which the reel by which halt operation was carried out is left reel 4L, and is referred to when the role of internal success in an election is a "four-sheet cherry" here.

[0102] Furthermore, drawing 15 (1) shows the halt table of "usually setting up" up the pattern "a cherry (pattern 97 of drawing 4)" to "the role of small of a four-sheet cherry" which is winning a prize set as the upper case or the lower berth of left display window 4L possible [ a halt display ].

[0103] When this halt table of "usually setting up" is set, since the pattern "JAC" of 3 or 14 serves as [ a halt actuated valve position ] a pattern halt position at the time of 3, 4, 14, or 15, it is indicated by halt and a "cherry" becomes the lower berth of left display window 4L with winning a prize of "the role of small of a four-sheet cherry." Moreover, since the pattern "an orange" of 5 or 16 serves as [ a halt actuated valve position ] a pattern halt position at the time of 5, 6, 16, or 17, it is indicated by halt and a "cherry" serves as winning a prize of "the role of small of a four-sheet cherry" on the upper case of left display window 4L.

[0104] Moreover, drawing 15 (2) shows the halt table of "a setup which is easy to draw a four-sheet cherry" set up so that it might be easy to indicate the pattern "a cherry" to "the role of small of a four-sheet cherry" which is winning a prize at the

upper case or the lower berth of left display window 4L by halt.

[0105] When the halt table of this "setup which is easy to draw a four-sheet cherry" is set, since the pattern "JAC" of 3 or 14 serves as [ a halt actuated valve position ] a pattern halt position at the time of 3, 4, 14, or 15, it is indicated by halt and a "cherry" becomes the lower berth of left display window 4L with winning a prize of "the role of small of a four-sheet cherry." Moreover, since the pattern "an orange" of 5 or 16 serves as [ a halt actuated valve position ] a pattern halt position at the time of either 5-9 or 16-18, it is indicated by halt and a "cherry" serves as winning a prize of "the role of small of a four-sheet cherry" on the upper case of left display window 4L. Thus, on the halt table of "a setup which is easy to draw a four-sheet cherry", the halt actuated valve position by which a halt indication of the "cherry" will be given is broadly set as the upper case of left display window 4L. That is, the possibility of winning a prize formation of "the role of small of a four-sheet cherry" is made to increase.

[0106] Drawing 16 shows the procedure of above-mentioned "pattern halt spotting processing." This pattern halt spotting processing is performed by ST15 (drawing 6) in the above-mentioned main flow chart.

[0107] First, refer to the halt table set to the predetermined field of RAM33 by ST62, ST66, or ST67 of the above-mentioned halt table lottery processing for CPU31 (ST71).

[0108] Next, CPU31 checks a halt actuated valve position (pattern on center line 8c) when the stop signal generated from the reel stop signal circuit 46 according to operation of each earth switches 7L, 7C, and 7R occurs, and determines a pattern halt position (pattern which indicates by halt on center line 8c) from the above-mentioned halt table based on the halt actuated valve position (ST72).

[0109] Drawing 17 shows the procedure of the liquid crystal display control processing performed in the factice CPU 74 of the sub control circuit 72, and drawing 18 shows the concrete display mode in screen 5a of a liquid crystal display 5.

[0110] First, a factice CPU 74 checks whether the start command has been received from the main-control circuit 71 (ST81), and a factice CPU 74 controls the picture control circuit 81 here to start the change display of a number pattern in screen 5a of a liquid crystal display 5 at the time of "YES." Drawing 18 (1) shows the display mode in screen 5a at this time.

[0111] Next, a factice CPU 74 distinguishes whether 2 seconds passed, after starting a change display (ST83). It distinguishes whether when it was "YES" here, the probability table lottery success-in-an-election command was received (ST84). A factice CPU 74 controls the picture control circuit 81 here to indicate "4" of a number pattern by halt at screen 5a at the time of "NO, i.e., "probability table lottery HAZURE", " (ST85). Drawing 18 (4) shows the display mode in screen 5a at this time.

[0112] It distinguishes whether on the other hand, by ST84, when [ of "YES" ] it

received at the time, i.e., a probability table lottery success-in-an-election command, the factice CPU 74 received the halt table lottery success-in-an-election command continuously (ST86). It is "NO" here at the time, i.e., "probability table lottery success in an election", and a factice CPU 74 controls the picture control circuit 81 to indicate "3" of a number pattern by halt at screen 5a at the time of "halt table lottery HAZURE" (ST87). Drawing 18 (3) shows the display mode in screen 5a at this time.

[0113] On the other hand, when [ of "YES" ] it receives at the time, i.e., a halt table lottery success-in-an-election command, a factice CPU 74 controls the picture control circuit 81 by ST85 to indicate "7" of a number pattern by halt at screen 5a (ST88). Therefore, when "7" of a number pattern is indicated by halt at screen 5a, it is "probability table lottery success in an election", and is at the time of "halt table lottery success in an election." Drawing 18 (2) shows the display mode in screen 5a at this time.

[0114] By the halt display of a number pattern "7" as shown in drawing 18 (2), therefore, a game person By the halt display of a number pattern "3" as can recognize easily having won by the "probability table lottery" and the "halt table lottery" and shows it to drawing 18 (3), a game person A game person can recognize easily the thing of a number pattern "4" as can recognize having won by the "probability table lottery" easily and shows it to drawing 18 (4) from which it separated in success in an election or both the lotteries of a "halt table lottery" by halt display. That is, it can discriminate easily [ whether it is a game state advantageous to the game person of the success-in-an-election probability to the role of winning a prize increasing, or becoming easy to draw a predetermined winning-a-prize pattern. ] before halt operation.

[0115] Moreover, in order to indicate the predetermined number pattern by halt after a change display, during the change display, a game person will hope that this game may be in an advantageous game state, and the interest of a game comes to increase.

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[Translation done.]

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DESCRIPTION OF DRAWINGS

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## [Brief Description of the Drawings]

[Drawing 1] The perspective diagram showing the appearance of the game machine of one example of this invention.

[Drawing 2] Drawing showing the circuitry in a game machine.

[Drawing 3] The block diagram showing the composition of a sub control circuit.

[Drawing 4] Drawing showing the pattern train in which two or more kinds of patterns expressed on the peripheral face of a reel were arranged.

[Drawing 5] The flow chart which shows the operations sequence of CPU of a main control circuit.

[Drawing 6] The flow chart which shows a continuation of drawing 5.

[Drawing 7] The flow chart which shows a continuation of drawing 6.

[Drawing 8] The flow chart which shows the procedure of probability lottery processing.

[Drawing 9] The flow chart which shows the procedure of probability table lottery processing.

[Drawing 10] Drawing showing a probability table lottery table.

[Drawing 11] Drawing showing a probability table.

[Drawing 12] The flow chart which shows the procedure of the role lottery processing of winning a prize.

[Drawing 13] The flow chart which shows the procedure of halt table lottery processing.

[Drawing 14] Drawing showing a halt table lottery table.

[Drawing 15] Drawing showing an example of a halt table.

[Drawing 16] The flow chart which shows the procedure of pattern halt spotting processing.

[Drawing 17] The flow chart which shows the procedure of liquid crystal display control processing.

[Drawing 18] Drawing showing the concrete display mode in the screen of a liquid crystal display.

## [Description of Notations]

1 [ — A panel display, 3L / — Left reel, ] — A game machine, 2 — A cabinet, 2a 3C [ — A left display window, 4C / — Inside display window, ] — An inside reel, 3R — A right reel, 4L 4R [ — The screen, 6 / — Start lever, ] — A display window, 5 — A liquid crystal display, 5a 7L [ — A right earth switch, 8a / — Cross down line, ] — A left earth switch, 7C — An inside earth switch, 7R 8b [ — Bottom line, ] — The top line, 8c — The center line, 8d 8e [ — 2-BET lamp, ] — A close-up line, 9a — A 1-BET lamp, 9b 9c [ — 1-BET switch, ] — A maximum BET lamp, 10 — The plinth section, 11 12 [ — C/P switch, ] — A 2-BET switch, 13 — A maximum BET switch, 14 15 [ — A WIN lamp, 18 / — Expenditure display, ] — A medal expenditure mouth,



16 — The medal receptacle section, 17 19 [ — Left loudspeaker, ] — A credit display, 20 — The bonus game information-display section, 21L 21R [ — Injection medal sensor, ] — A right loudspeaker, 22 — Medal input port, 22S 23 [ — During RB operation, Lamp, ] — A dividend table panel, 25 — BB game state lamp, 26 27 [ — Microcomputer, ] — A re-game display lamp, 28 — A game halt display lamp, 30 31 [ — RAM, 34 / — Clock pulse generating circuit, ] — CPU, 32 — ROM, 33 35 [ — A sampling circuit, 38 / — I/O Port, ] — A counting-down circuit, 36 — A random number generator, 37 39 [ — Hopper drive circuit, ] — A motorised circuit, 40 — A hopper, 41 45 [ — Display drive circuit, ] — A lamp drive circuit, 46 — A reel stop signal circuit, 48 49L, 49C, 49R — A stepping motor, 50 — Reel position detector, 51 [ — A sub control circuit, 73 / — Sub microcomputer, ] — The completion signal circuit of expenditure, 71 — A main-control circuit, 72 74 [ — Work RAM ] — Factice CPU, 75 — Program ROM, 76 77 [ — Power amplification, 80 / — OUT port, ] — IN port, 78 — A sound source IC, 79 81 [ — The picture control work RAM 84 / — Picture control program ROM, 85 / — IN port, 86 / — Picture ROM, 87 / — A Video RAM, 88 / — Picture control IC, ] — A picture control circuit, 82 — The picture control CPU, 83

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[Translation done.]

**\* NOTICES \***

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1. This document has been translated by computer. So the translation may not reflect the original precisely.

2. \*\*\*\* shows the word which can not be translated.

3. In the drawings, any words are not translated.

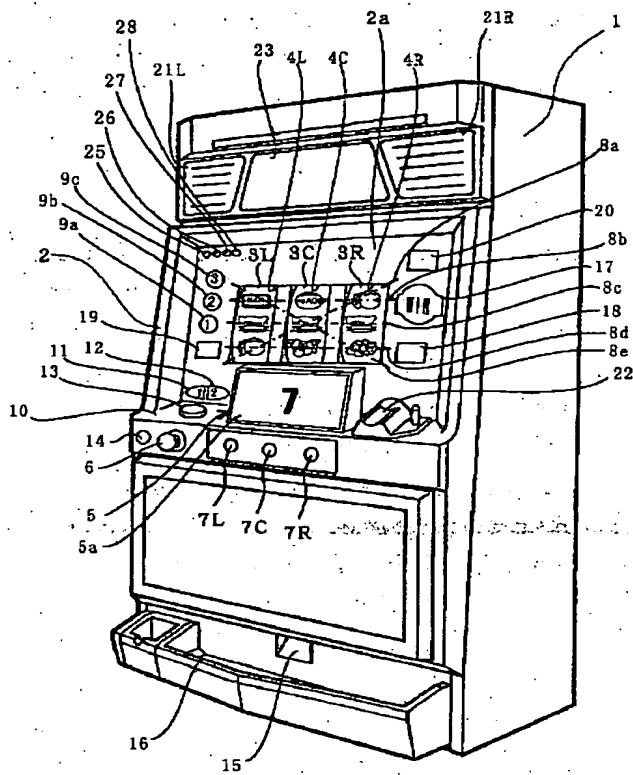
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**DRAWINGS**

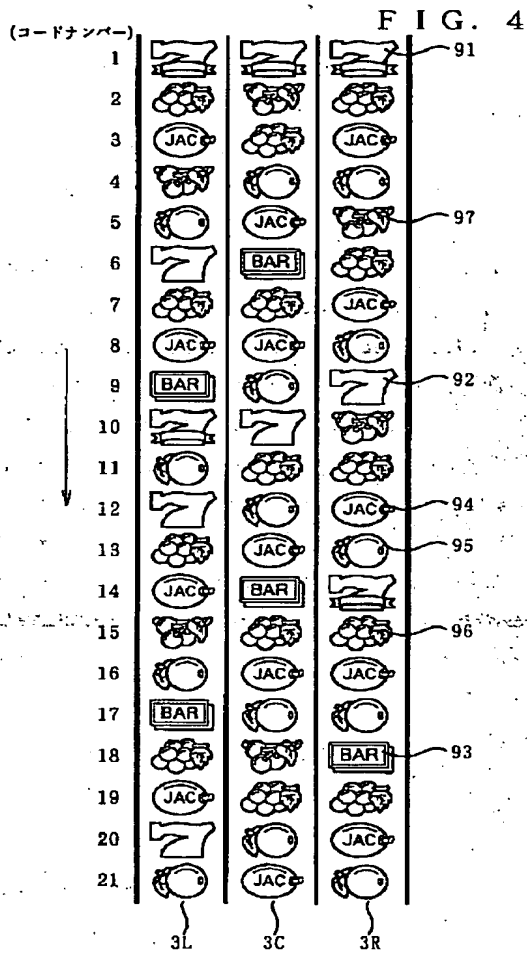
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[Drawing 1]

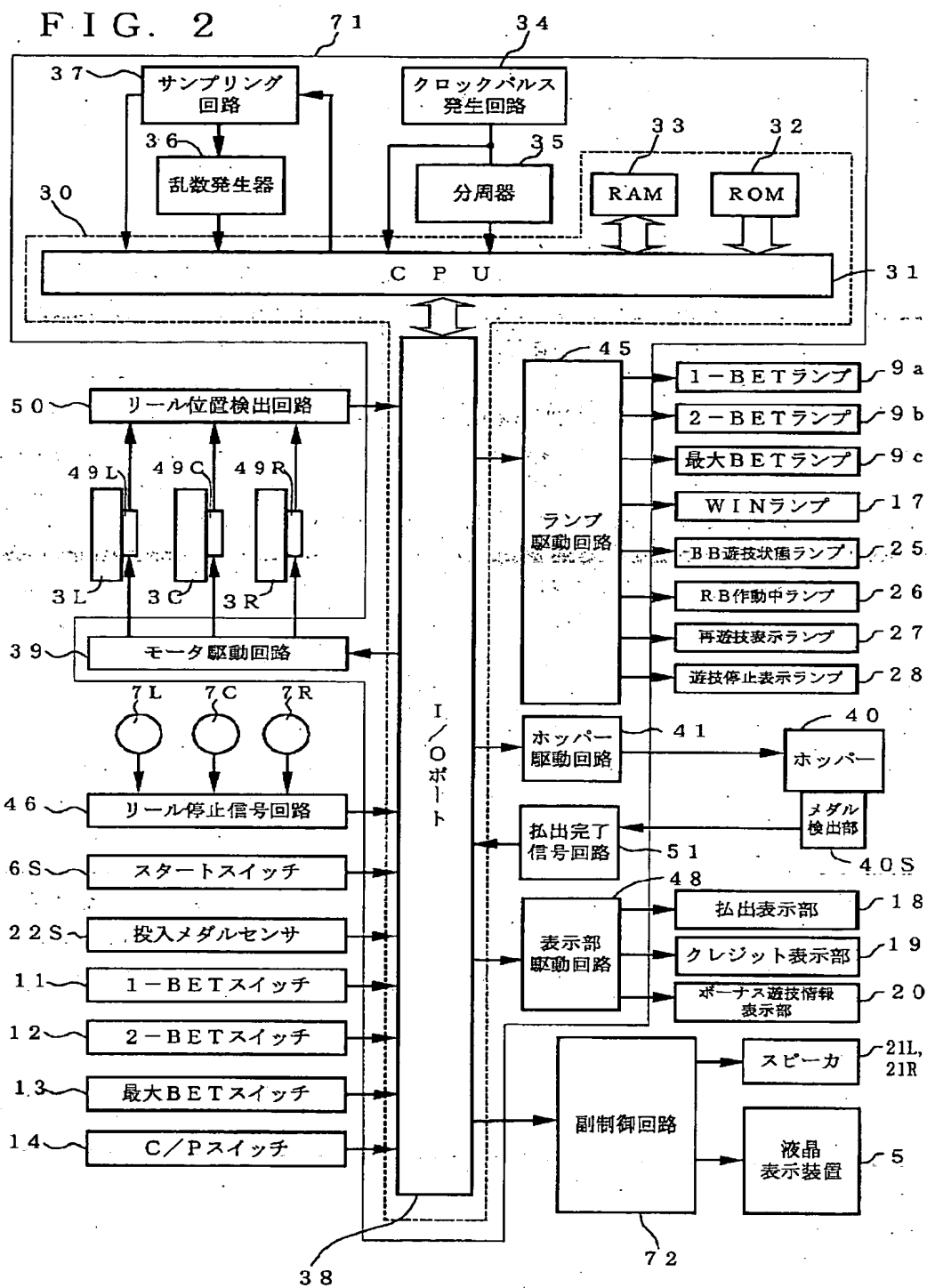
FIG. 1



[Drawing 4]

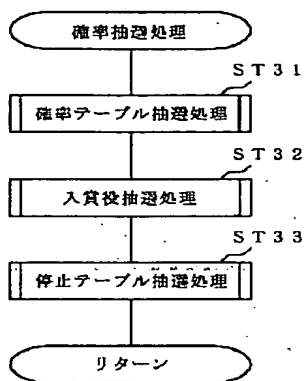


[Drawing 2]



[Drawing 8]

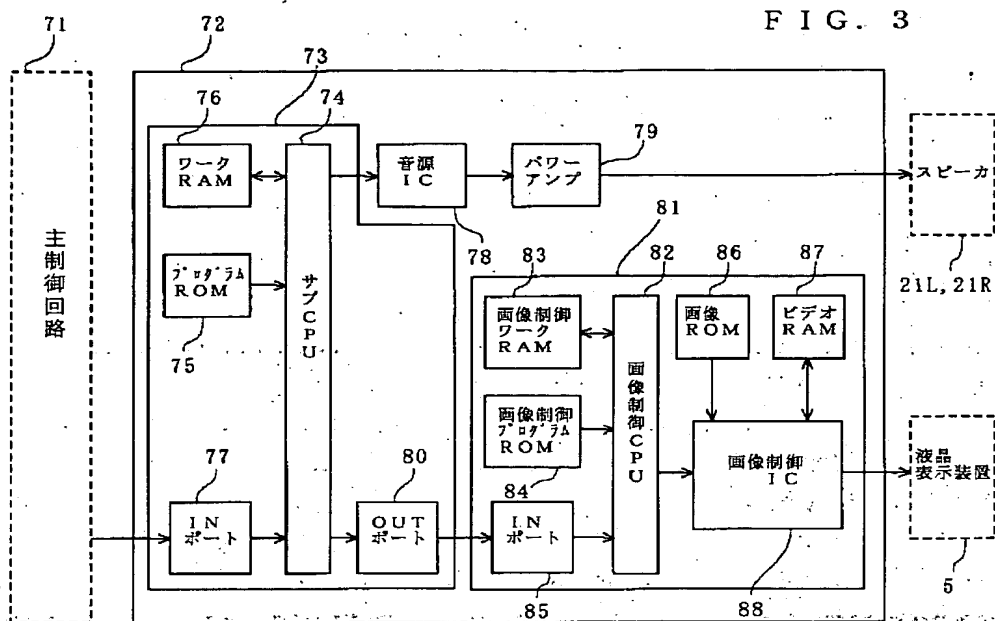
FIG. 8

[Drawing 10]  
FIG. 10

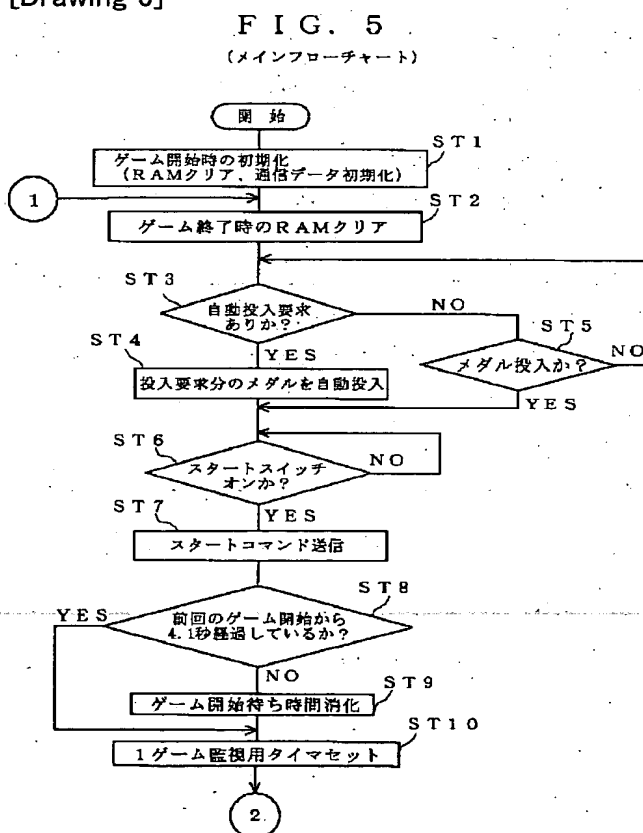
確率テーブル抽選テーブル

設定値	抽選値
1	600
2	605
3	610
4	620
5	750
6	800

[Drawing 3]

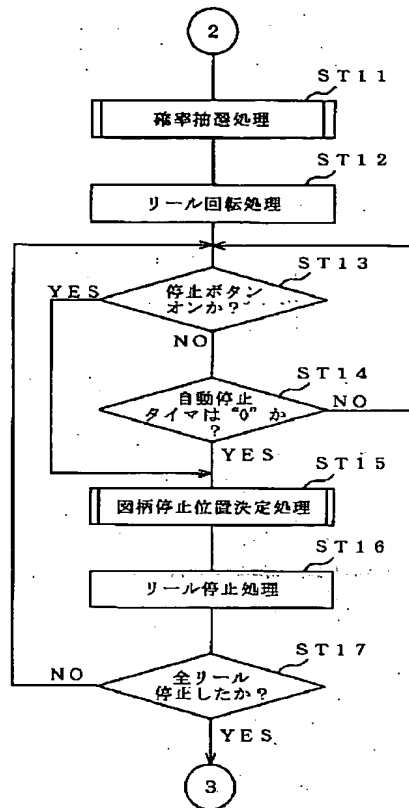


[Drawing 5]



[Drawing 6]

FIG. 6

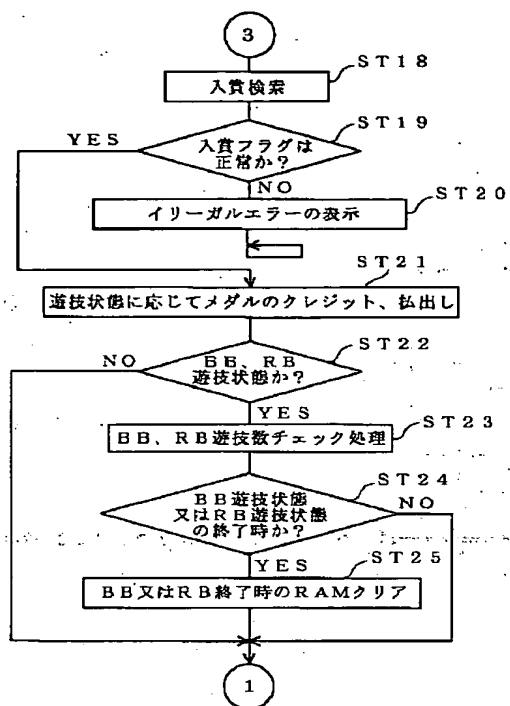
[Drawing 14]  
FIG. 14

停止テーブル抽選テーブル

設定値	抽選値
1	700
2	800
3	900
4	1000
5	1200
6	1600

[Drawing 7]

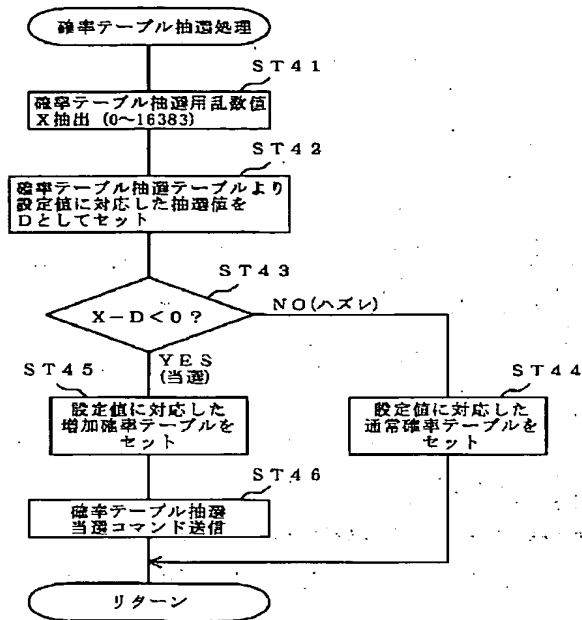
FIG. 7



[Drawing 9]



FIG. 9



[Drawing 11]

FIG. 11

確率テーブル (設定値=3 の場合)

通常確率テーブル

当選番号	入賞役	抽選値
1	ブドウ	200
2	オレンジ	600
3	4枚チェリー	1000
4	2枚チェリー	800
5	再遊技	2250
6	BB	50
7	RB	600

増加確率テーブル

当選番号	入賞役	抽選値
1	ブドウ	200
2	オレンジ	600
3	4枚チェリー	2000
4	2枚チェリー	700
5	再遊技	2250
6	BB	60
7	RB	600

[Drawing 15]

FIG. 15

左リール用停止テーブル (内部当選役: 4枚チェリー)

(1) 通常設定

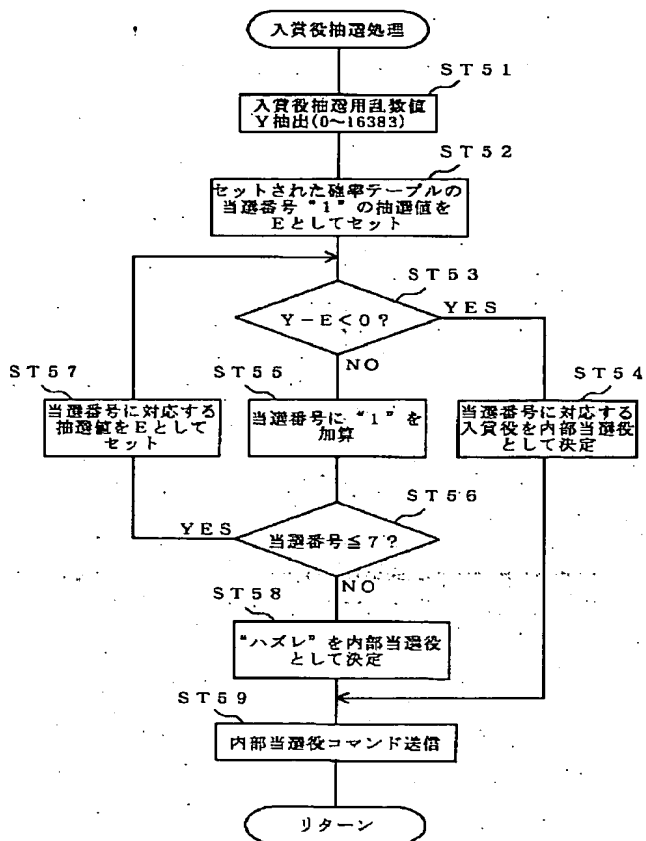
停止操作位置	図柄停止位置
1	21
2	21
3	3
4	3
5	5
6	5
7	7
8	7
9	7
10	10
11	10
12	10
13	12
14	14
15	14
16	16
17	16
18	17
19	19
20	19
21	19

(2) 4枚チェリーを引き込みやすい設定

停止操作位置	図柄停止位置
1	21
2	21
3	3
4	3
5	5
6	5
7	5
8	5
9	5
10	10
11	10
12	10
13	12
14	14
15	14
16	16
17	16
18	16
19	19
20	19
21	19

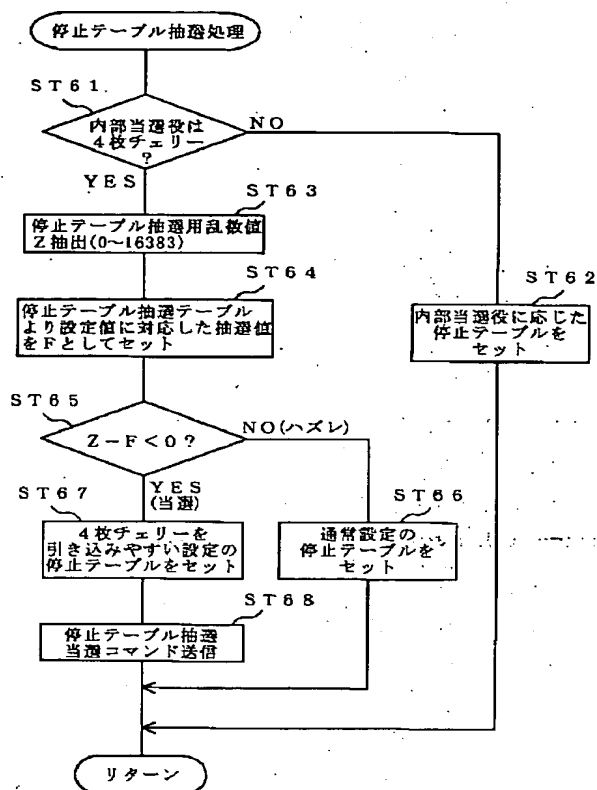
[Drawing 12]

FIG. 12



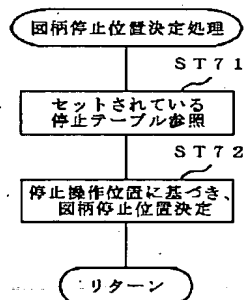
[Drawing 13]

FIG. 13



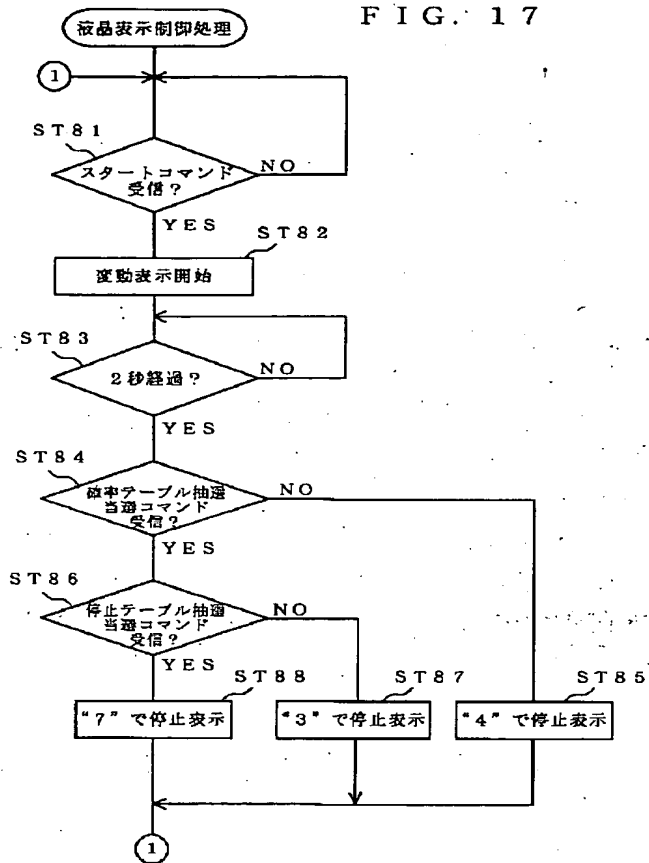
[Drawing 16]

FIG. 16



[Drawing 17]

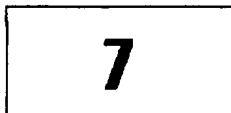
FIG. 17



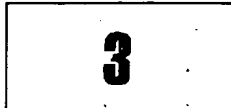
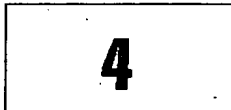
[Drawing 18]

FIG. 18

(1) スタート操作時

(2) 確率テーブル抽選で当選し、  
かつ停止テーブル抽選で当選した場合

(3) 確率テーブル抽選でのみ当選した場合

(4) 停止テーブル抽選でのみ当選、  
または、両抽選でハズレの場合

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[Translation done.]